# Tacoma Narrows Bridge Project Nighttime Construction Noise Quarterly Report: April - June 2004

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# INTRODUCTION

The Washington State Department of Transportation (WSDOT) and Tacoma Narrows Constructors have been issued a noise variance by the Tacoma-Pierce County Health Department. The variance was issued for noise levels expected to result from construction work between 10:00 p.m. and 7:00 a.m. in conjunction with the construction of the new Tacoma Narrows Bridge. The variance was issued with several conditions, including that WSDOT provide quarterly reports to the Health Department on activities relevant to the variance.

This is the sixth quarterly report and covers the period including April through June 2004. The following areas are addressed in this report:

- Overview of Nighttime Construction Activities
- Communication Activities
- Complaint Response & Resolution
- Upcoming Activities
- Attachments
  - 1. Public Mailings
  - 2. Nighttime construction activities log
  - 3. Citizen Contacts & Complaints
  - 4. Noise Measurements
  - 5. Drainage Pipe Installation submittal

# OVERVIEW OF NIGHTTIME CONSTRUCTION ACTIVITIES: APRIL - JUNE '04

Work activities took place on the project site between 10:00 p.m. and 7:00 a.m. on a total of 91 nights during the period including April, May, and June 2004. Of this total number of nights, there were 47 <u>nights when specific construction activities took place</u>, and 44 additional nights when the two new caissons were staffed by project workers.

Nighttime construction work during this period took place in the Narrows at the new bridge caissons, at the temporary concrete batch plant, along the SR 16 mainline roadway in the vicinity of 24<sup>th</sup> St., 36<sup>th</sup> St., and between the Narrows Bridge and Jackson Avenue, and also at the Narrows shoreline, on the Gig Harbor side, beneath the Narrows Bridge. April and May are the start of the "dry season" for construction and during these months the project's roadway work re-started in earnest.

During this period, eight complaints were received by WSDOT about construction noise from the project.

The caisson work sites in the Narrows were staffed 24 hours per day, 7 days per week. Two work shifts were scheduled on working days. Construction activities included barge operations, rebar installation, concrete placement, and dredging. During dredging operations, two twelve hour shifts are employed with eight hours of dredging during each shift. During hours when construction work was not actively underway, workers on the caisson work sites may have been operating generators or maneuvering barges.

Regular concrete production, typically two or three times per week, continued during this period at the temporary concrete batch plant. On 17 occasions during this period batch plant operations began between 4:30 - 7:00 a.m. A total of 15 hours of batch plant operations took place between 10:00 p.m. and 7:00 a.m. during this period.

<u>During this period, the construction of the new bridge caissons was completed.</u> This is a major milestone for the project. As a result, dredging activities are effectively complete as are the regular very large magnitude concrete pours.

Roadway work on the SR 16 mainline requiring temporary lane closures took place during nighttime hours on either side of the Narrows for a total of 23 nights during this period.

During the last two weeks of June, the installation of a permanent drainage outfall pipe into the Narrows bed at the shoreline on the Gig Harbor side was initiated. This work is described thoroughly in Attachment 5.

Specific descriptions of the type, location, and times of this work are provided in Attachment 2.

#### **COMMUNICATION ACTIVITIES**

#### > INFORMATION & HOT LINE

A telephone information and "hot" line continues to be operational providing information about upcoming nighttime construction activities. It also provides residents an opportunity to communicate at any time of day with a live person about questions and/or concerns relating to the project nighttime construction activities and noise. This service operates 24 hours a day, 7 days per week. The phone number is 253-620-4440.

Nighttime construction activity information is provided in a recorded message, updated on a daily basis to provide the most current information. Messages can also be left on the information line concerning the nighttime construction activities and these messages will be responded to within 24 hours (on project working days).

Residents can also communicate directly with a person who can provide relevant information about project nighttime construction activities, accept comments, and if appropriate, directly contact WSDOT project staff. When project construction

activities are taking place, the person staffing the "hot line" is able to immediately contact WSDOT project staff and to relay comments/complaints received. If requested by the caller, WSDOT project staff will return the call as soon as feasible.

#### > WEBSITE

To maximize public access to timely information about nighttime construction activities, a section of the project's web site is dedicated to providing quick, easy access to information concerning nighttime construction activities. Information on this web site is updated daily to provide the most current information.

Comments and concerns about the nighttime construction activities can be submitted to project staff through the web site and will be responded to within 24 hours (on project working days).

#### > POSTAL CARRIER ROUTE MAILINGS

As described in the Communication Plan for Nighttime Construction Noise, information sheets have been delivered by postal carrier routes to residences and businesses along the project corridor.

Prior to each calendar month, residents along the project corridor have been mailed notification flyers about nighttime work activities scheduled to take place throughout the upcoming month. Each monthly flier is mailed to 4000 addresses.

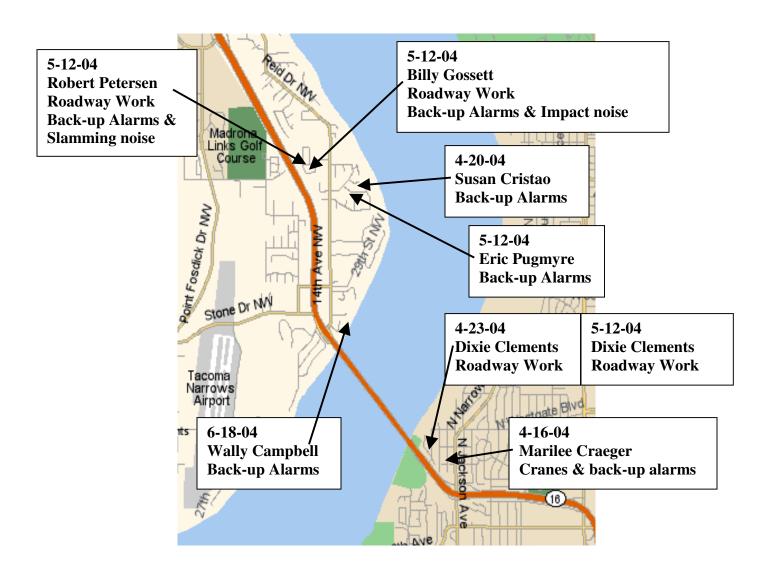
Copies of the notification flyers distributed during this period are provided in Attachment 2.

# **COMPLAINT RESPONSE & RESOLUTION**

During this quarter (April - June '04), WSDOT received eight complaints about noise from the project. The approximate location of each complaint is shown below along with the date of the complaint and basic complaint issue.

Three of the complaints were received on the same day, 5-12-04, regarding the same work activity. There was one "repeat" complaint (Dixie Clements – 4-23 & 5-12) by the same individual about the same work activity.

Attachment 3 includes complete summaries of these contacts and their resolution.



# **UPCOMING ACTIVITIES**

During the upcoming quarter, July - September '04, construction activities will continue throughout the project site along the SR 16 corridor from Jackson Avenue to the vicinity of 36<sup>th</sup> Street.

Work activities in the Narrows will continue, but have now shifted to construction of the new bridge towers. Tower work is scheduled to take place six days per week with the work sites being staffed seven days per week. The majority of tower construction will take place between 7:00 a.m. -10:00 p.m., but some activities, including some concrete placement, will occur outside those hours. In comparison to the caisson construction, the individual concrete pours for the tower construction will be of smaller magnitude.

Concrete production will continue at the temporary batch plant typically two to three times per week. Concrete pours will be at both tower locations in the Narrows, both anchorage sites for the new Narrows Bridge, and retaining wall locations. The majority of concrete production will take place between 7:00 a.m. and 10:00 p.m., but some pours will start earlier and may continue later due to the magnitude of the pours as described in the noise variance. Typically, only one large pour per week is expected. This is a reduction from the production requirements during caisson construction.

While roadway work will take place on each side of the Narrows along the full length of the project corridor, the vast majority of this work will be conducted during daytime hours. The project's prevailing roadway construction strategy is to shift mainline SR 16 traffic onto temporary alignments that can be maintained for extended periods while most construction of new roadways takes place away from traffic. The relatively small amount of nighttime work required by this strategy is for construction of the "tie-ins" between the roadway configurations and the actual shifting of traffic lanes. Two mainline lane shifts are scheduled on the Gig Harbor side in late July and late August, and one on the Tacoma side in either late July or early August. Some installation of drainage pipes beneath mainline roadways may also be necessary during this period.

The installation of the drainage outfall pipe in the Narrows bed on the Gig Harbor shoreline is now scheduled for completion in August. This work will continue to require some nighttime construction due to the need for use of the daily high-high tide event for barge operations. The installation of the temporary sheet pile cofferdam is effectively complete as of this submittal. The temporary sheet piles will be removed at the completion of this work, now scheduled for August.